

What is claimed is:

- 1 1. A radio for a communication system, the radio transmitting a  
2 carrier signal having plural time slots designated as active and  
3 inactive time slots by a system controller, the radio comprising:  
4 a modulator that modulates the carrier signal with transmit  
5 data during active time slots when the transmit data is supplied  
6 from the system controller and discontinues modulation of the  
7 carrier signal during inactive time slots when random bits are  
8 supplied from the system controller; and  
9 a transmitter that wirelessly transmits the carrier signal  
10 provided by said modulator.
- 1 2. The radio of claim 1, wherein said modulator discontinues  
2 modulation of the carrier signal gradually over at least a two-symbol  
3 time period.
- 1 3. The radio of claim 1, wherein said modulator modulates the  
2 carrier signal with transmit data, sync data and CDL information  
3 supplied from the system controller during active time slots and  
4 modulates the carrier signal only with sync data and CDL  
5 information during inactive time slots.
- 1 4. The radio of claim 1, wherein said transmitter wirelessly  
2 transmits the carrier signal to a mobile station in a TDMA  
3 communication system.
- 1 ~~5.~~ A method of reducing adjacent and co-channel interference  
2 generated by a radio, the radio transmitting a carrier signal having

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1 ~~9.~~ A system controller comprising:  
2 means for providing transmit data for time slots of carrier  
3 signals to be wirelessly transmitted from base stations; and  
4 control means for designating which of the time slots are  
5 active time slots wherein carrier signals are modulated with  
6 transmit data and which are inactive time slots wherein modulation  
7 of carrier signals with transmit data is discontinued,



1 16. The article of manufacture of claim 15, wherein the carrier  
2 signals are TDMA carrier signals.

17. An article of manufacture taking the form of a computer-readable medium for reducing adjacent and co-channel interference in carrier signals having plural time slots designated as active time slots and inactive time slots by a system controller, the article of manufacture comprising:

- a transmit data source code segment for causing a computer to provide transmit data for time slots of carrier signals to be transmitted by base stations;
- a designation source code segment for causing the computer to designate which of the time slots are active time slots wherein carrier signals are modulated with transmit data and which are inactive time slots wherein modulation of carrier signals with transmit data is discontinued; and

9            wherein multiple mobile stations lock on to the propagated  
10    signal and wherein interference created by the propagated signal in  
11    other propagated signals received by the mobile stations is reduced  
12    when the control and data segment of an inactive time slot is not  
13    modulated with transmit data.